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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,333	06/10/2005	Andrei Mijiritskii	NL030118	1598

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BRIARCLIFF MANOR, NY 10510

EXAMINER

SHEN, KEZHEN

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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03/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,333	Applicant(s) MIJIRITSKII, ANDREI	
	Examiner Kezhen Shen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claim 1/5/2009 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, applicant argues Tomie fails to teach the limitations of the claimed invention. However, the examiner disagrees. Applicant discusses the other of the present invention as thermal barrier layer, first dielectric layer, phase-change recording layer, second dielectric layer and mirror layer. As seen from Fig. 1 of Tomie, these elements are all present. The upper dielectric layer (6 of Fig. 1) of Tomie as the thermal barrier layer and first dielectric layer of the claimed invention, the recording layer (5 of Fig. 1) of Tomie as the phase-change recording layer claimed invention, the lower dielectric layer (4 of Fig. 1) of Tomie as the second dielectric layer and the reflecting layer (3 of Fig. 1) of Tomie as the mirror layer. The rejection is present again below for applicant's benefit.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomie US 6,251,492 B1.

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Regarding claim 1, Tomie teaches a rewritable optical record carrier (Fig. 1, Col 3 Lines 30-48) comprising a recording stack of layers with a first dielectric layer (6 of Fig. 1, Col 3 Lines 30-48); a recording layer comprising a phase-change recording material (5 of Fig. 1, Col 3 Lines 30-48); a second dielectric layer (4 of Fig. 1, Col 3 Lines 30-48); and a mirror layer deposited onto the second dielectric layer side of the recording stack (3 of Fig. 1, Col 3 Lines 30-48), characterized in that a thermal barrier layer (6 of Fig. 1, Col 3 Lines 30-48) is arranged adjacent to said first dielectric layer opposite the mirror layer (Fig. 1, Col 4 Lines 47-51, Col 5 Lines 51-54 the first dielectric layer and the thermal barrier layer can be one and the same and made of the same material ZnS-SiO₂).

Regarding claim 2, Tomie teaches the rewritable optical record carrier as claimed in claim 1, characterized in that the rewritable optical record carrier further comprises a substrate carrying said stack of layers having said thermal barrier layer arranged between said first dielectric layer and said substrate (1, 2 and 4 of Fig. 1, Col 3 Lines 30-48).

Regarding claim 3, Tomie teaches the rewritable optical record carrier as claimed in claim 2, characterized in that the refraction index of said thermal barrier layer is close to the refraction index of said substrate (Col 4 Lines 9-11, Col 4 Lines 46-50 the refractive index of SiO₂ is around 1.5 and the refractive index of Polycarbonate is around 1.58).

Regarding claim 4, Tomie teaches the rewritable optical record carrier as claimed in claim 1, characterized in that the rewritable optical record carrier further comprises a

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cover layer (1 of Fig. 1, Col 3 Lines 30-48 the substrate is the cover layer, in this case there would be another layer covering the second dielectric layer, Col 5 Line 65- Col 6 Line 5) attached to said thermal barrier layer.

Regarding claim 5, Tomie teaches the rewritable optical record carrier as claimed in claim 4, characterized in that the refraction index of said thermal barrier layer is close to the refraction index of said cover layer (Col 4 Lines 9-11, Col 4 Lines 46-50 the refractive index of SiO_2 is around 1.5 and the refractive index of Polycarbonate is around 1.58).

Regarding claim 6, Tomie teaches the rewritable optical record carrier as claimed in claim 2, characterized in that Said substrate material is polycarbonate or PMMA (Col 1 Lines 51-58, Col 4 Lines 9-11).

Regarding claim 7, Tomie teaches the rewritable optical record carrier as claimed in claim 4, characterized in that said cover layer material is polycarbonate or transparent polymer resin (Col 1 Lines 51-58, Col 4 Lines 9-11).

Regarding claim 8, Tomie teaches the rewritable optical record carrier claimed in claim 1, characterized in that said thermal barrier layer material comprises SiO_2 or Al_2O_3 as a major component (Col 4 Lines 46-51).

Regarding claim 9, Tomie teaches the rewritable optical record carrier as claimed in claim 1, characterized in that said first and second dielectric layer materials comprise one of the following components or a mixture thereof: ZnS , SiO_2 , Si_3N_4 , Al_2O_3 or Ta_2O_5 (Col 5 Lines 49-54).

Regarding claim 10, Tomie teaches the rewritable optical record carrier as claimed in claim 1, characterized in that said phase-change recording material comprises a mixture of Ge, In, Sb, and Te (Col 5 Lines 20-25).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kezhen Shen whose telephone number is (571) 270-1815. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kezhen Shen/
Examiner, Art Unit 2627

/Joseph H. Feild/
Supervisory Patent Examiner, Art
Unit 2627